

ABSTRACT OF THE DISCLOSURE

A method is delineated for detecting and locating coronary artery and heart disease comprising the steps of obtaining electrocardiograph (EKG) signals from a patient, modifying the EKG signals, and establishing a base value for use in evaluating modified EKG signals.

5 The step of modifying includes the steps of amplifying the EKG signals, digitizing amplified EKG signals, mathematically modifying the amplified and digitized EKG signals to obtain 12 lead signals in the time domain, and converting the 12 lead signals into power spectrum signals in the frequency domain. The base value is obtained by taking a patient's resting heart rate in beats per minute, converting it to beats per second, and multiplying by a scaling
10 quantity between approximately 3 and 7, inclusively. Then, a first area is calculated by integrating a selected one of the power spectrum signals from zero Hertz to the base value. Similarly, a second area results from integrating the selected power spectrum signal from the base value to infinity. Then, one takes the ratio of the first to second areas to obtain an evaluation standard indicative of the patient's coronary health. Peak analysis of the power
15 spectrum signals is also available, and a scheme for locating detected heart disease is also provided. Lastly, a system corresponding to the aforementioned methodology is shown.